What is claimed is:

1. An endoscope insertion shaft comprising:
a tubular member having an axis and including at least one aperture for increasing the flexibility thereof; and
a sheath comprising at least one layer jacketing the tubular member and comprising polyesters, polyester resins, austenitic stainless steel, carbon fibers, aramides, aramide fibers, polyurethane epoxies, extruded polyetherurethane or polyimides.

2. The endoscope insertion shaft as set forth in Claim 1 wherein the at least one aperture comprises a pattern of apertures.

3. The endoscope insertion shaft as set forth in Claim 2 wherein the pattern of apertures comprises a first set of apertures positioned along a line parallel to the axis of the tubular member.

4. The endoscope insertion shaft as set forth in Claim 3 wherein the first set of apertures comprises at least one elongated aperture having an axis oriented at an angle to the axis of the tubular member.

5. The endoscope insertion shaft as set forth in Claim 4 wherein the angle is in the range from zero to ninety degrees.

6. The endoscope insertion shaft as set forth in Claim 2 wherein the pattern of apertures comprises a pair of apertures.

7. The endoscope insertion shaft as set forth in Claim 2 wherein the apertures are circumferentially positioned on the tubular member.

8. The endoscope as set forth in Claim 1 wherein the at least one layer comprises:

a braided layer jacketing the tubular member; and

a laminating layer jacketing the tubular member.

9. The endoscope as set forth in Claim 8 further comprising a barrier layer jacketing the tubular member.

10. The endoscope as set forth in Claim 8 wherein the laminating layer jackets the braided layer.

11. The endoscope as set forth in Claim 10 wherein the wear layer jackets the laminating layer.

12. The endoscope as set forth in Claim 1 wherein the sheath comprises a composite material.

13. An endoscope insertion shaft comprising:

a composite body having an axis and at least one aperture for increasing the flexibility thereof and comprising austenitic stainless steel, martensitic stainless steel, Nitinol, nickel alloys, copper alloys, high modulus plastics, polyesters, polyester resins, carbon fibers, aramides, aramide fibers, polyurethane epoxies, extruded polyetherurethanes or polyimides.

14. A method of manufacturing an endoscope insertion shaft, the method comprising:

layering a plurality tubular structures, each tubular structure having prescribed mechanical properties;

under a prescribed temperature and pressure, forming a bond between the tubular structures; and

cooling the tubular structures to form a cross linked polymer.

15. The method as set forth in Claim 14 wherein forming a bond comprises reflowing a thermoset plastic.